



U.S. Department of Energy  
Energy Efficiency and Renewable Energy

# Energy Savings Performance Contracting

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## What is Performance Contracting?

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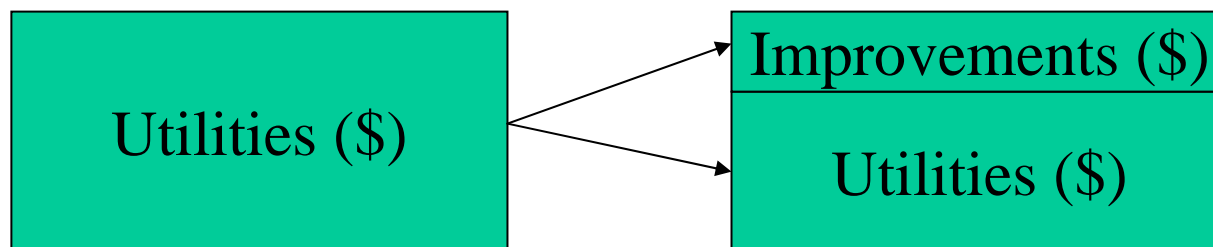
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# Energy Performance Contracting

- A procurement methodology and project delivery method
- To improve infrastructure
- By leveraging existing operating inefficiencies
- To fund the improvements





# What is Performance Contracting?

- A process where a customer partners with a qualified service provider
- Together they develop a program consisting of financial, technological and operational solutions that meet specific performance criteria
- The financial risk lies with the service provider who guarantees the customer a required level of performance



## Historical Perspective

Energy Services Performance Contracting began in the early 1980's when the State of Ohio allowed public-funded institutions, primarily schools, to take on long-term debt in order to fund energy conservation projects (as long as they were *primarily* self funding / budget neutral, over a finite term - usually 10 years).

These early laws were the basis for the fundamental model that has been adopted by most states for their publicly funded institutions.

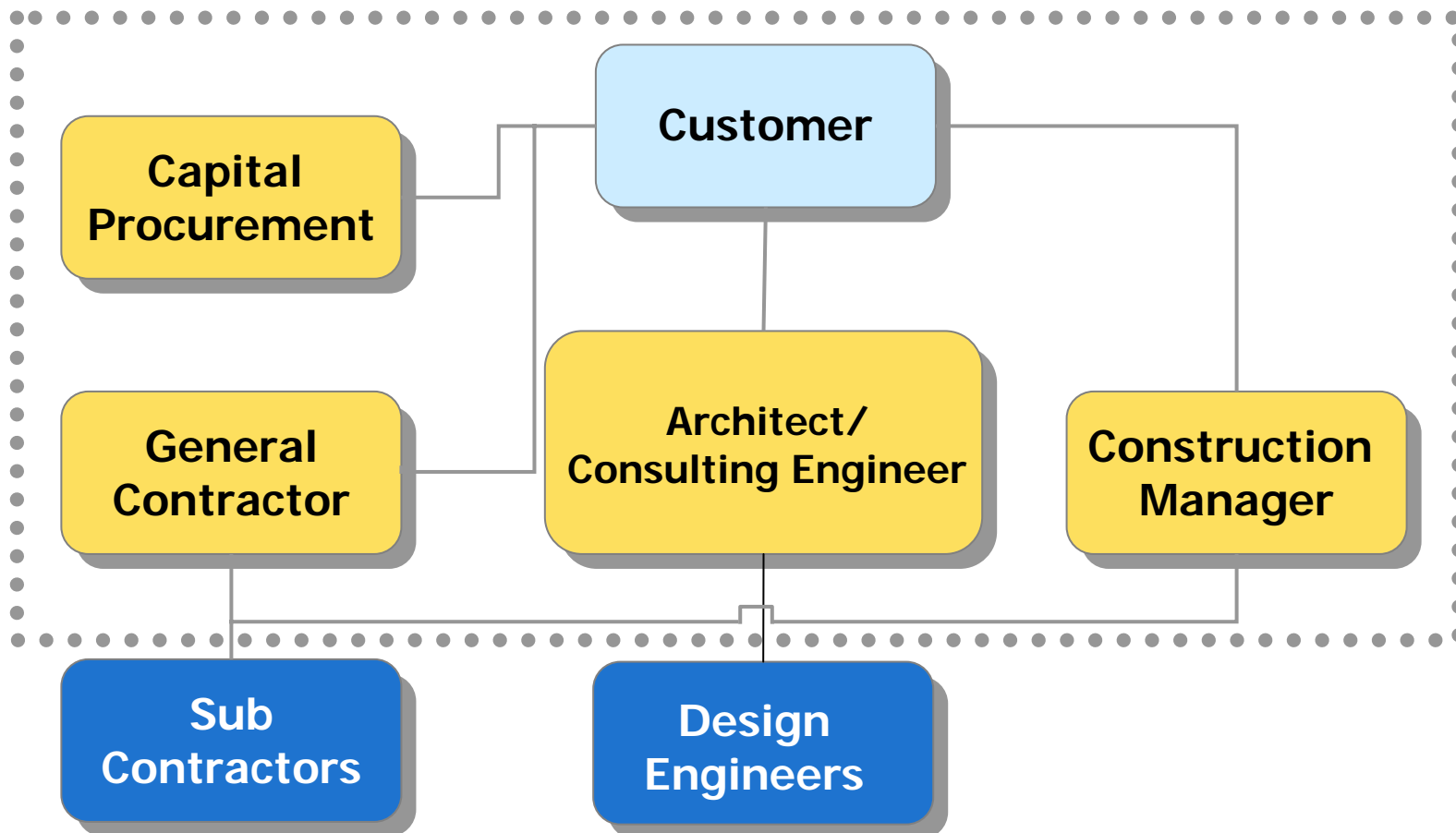


# The Evolution of an Industry

- Industry is approximately 25 years old
- 42 states employ enabling PC legislation
- 17 accredited companies in NAESCO
  - Engineering firms
  - Product companies
  - Utilities
  - Contractors
- Rebuild America, ESC, and NAESCO

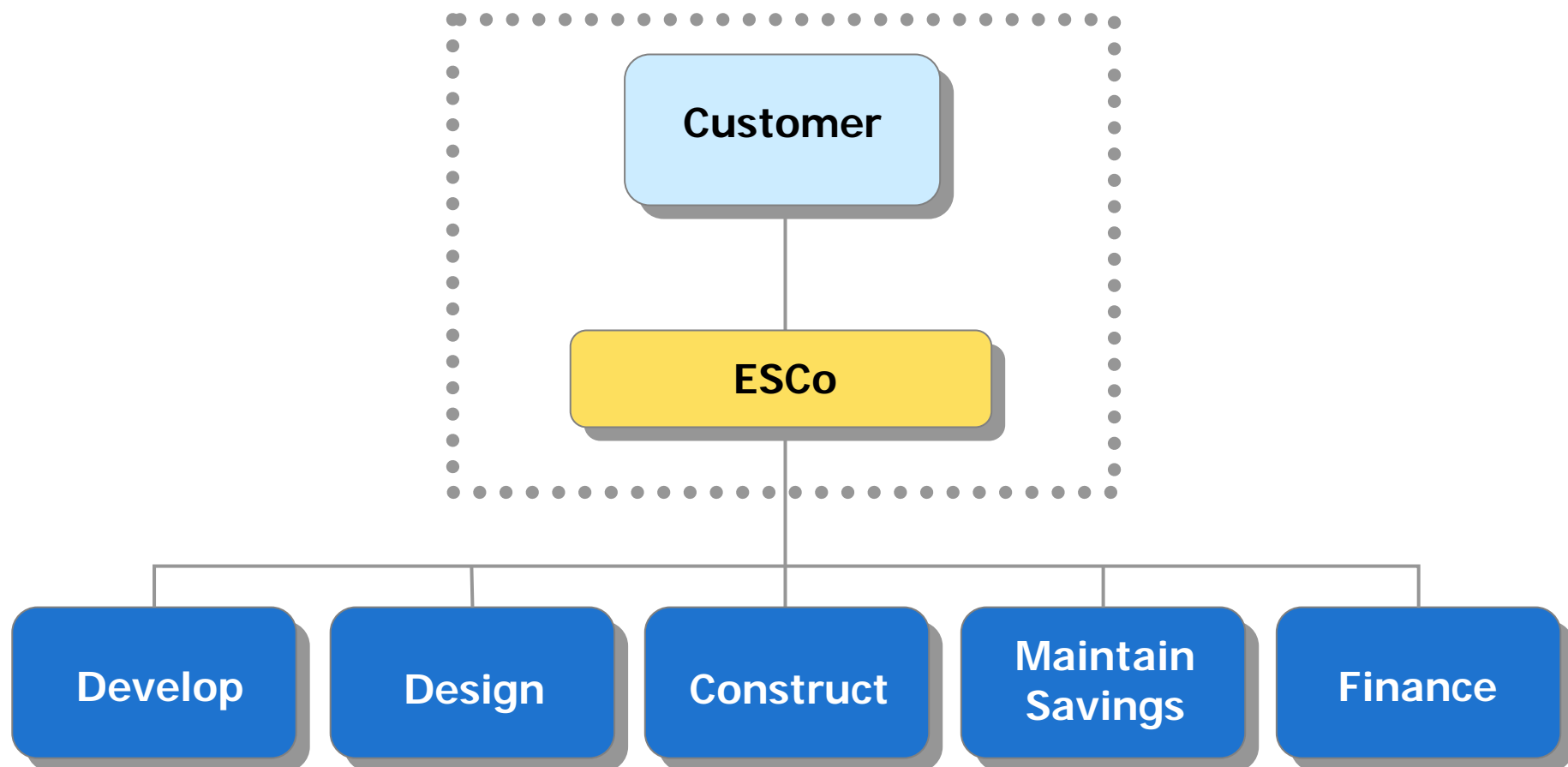


# Design-Bid-Build Process





# PC - Single-Source Responsibility





## Traditional Measures

- Lighting system improvements
- Energy efficient motors and pump
- Steam trap repairs and replacement
- Water and waste water conservation
- Variable frequency drives
- HVAC equipment upgrades
- New or upgraded appliances
- Vending machines, plug loads
- Energy Management Systems and Building Automation Systems

## Comprehensive Measures

- Cogeneration
- Micro-turbines
- Renewable Energy Options; PV, Wind, Fuel cell, Geo-thermo
- Window replacements
- Solar thermal for swimming pools, hot water
- Central Plant upgrades, boilers, water treatment
- Fuel switching options
- Electrical Systems upgrades and Preventive Maintenance





## PC - Why Use it?

- It's allowed by law
- You can get new stuff
- Addresses Infrastructure needs
  - Better use of capital budget
  - YOU select the priorities for capital expenditures It's Efficient!
- It's environmentally correct!
  - Fossil fuel consumption is reduced
  - Equipment Life Span is increased

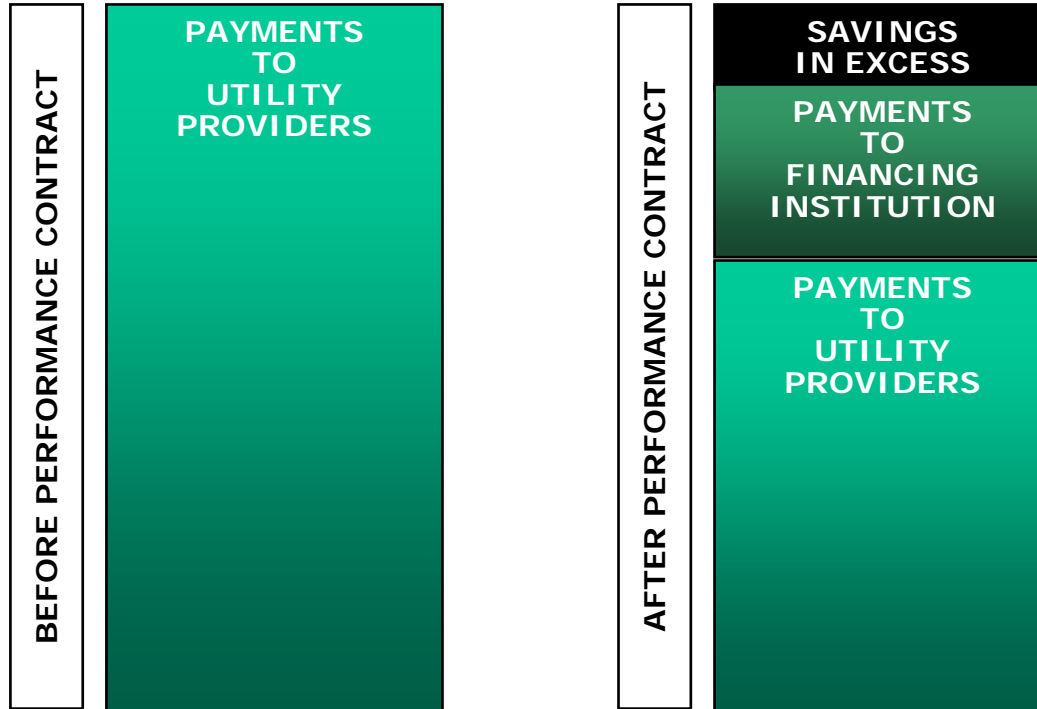


## PC - Why Use it?

- It limits your decision-making "risk"
  - Assured economic results through the PC Guarantee
- It addresses Deferred Maintenance
  - Mandates successful service strategies
  - Increases the life of equipment
  - Ensures better use of operating budgets



# Energy Performance Contracting





# Issues & Risks to Consider

- Design and construction cost
- Technology performance
- Savings
- Stability of business/level of operation
- Credit approval
- Energy prices
- Future regulatory changes
- O&M cost



# Significant Benefits

- Facility renewal
- Energy and cost savings
- Reduced maintenance and service costs
- Avoided expenditure of capital funds
- Preserved debt and/or bonding capacity
- Improved comfort
- Enhanced aesthetics
- Improved Indoor Air Quality
- Improved productivity
- More satisfied occupants